

WHAT IS CLAIMED IS:

1. A portable USB storage device, comprising:

a USB connector having power pins and data pins;

a DRAM unit;

5 a USB controller connected to the data pins and the DRAM unit for controlling data access of the DRAM unit;

a refreshing circuit coupled to the power pins, the refreshing circuit being operative to supply refreshing pulses to the DRAM unit when the USB connector is inserted into a socket of a host; and

10 a rechargeable battery charged via the power pins when the USB connector is inserted into the socket of the host, the rechargeable battery being operative to supply power to the DRAM unit and the USB controller, wherein, responsive to disconnecting the USB connector from the host, the DRAM unit is switched to a self-refreshing mode by the USB controller
15 and the USB controller enters into a power saving mode.

2. The portable USB storage device as claimed in claim 1, further comprising a charging circuit coupled to the power pins, the charging circuit being operative to charge the rechargeable battery in response to receiving an instruction from the power pins.

20 3. The portable USB storage device as claimed in claim 1, wherein the USB controller comprises a detection pin coupled to the power pins, the detection pin being adapted to detect the disconnection of the USB storage device from the host.

4. The portable USB storage device as claimed in claim 1, wherein

the power pins are comprised of a +5V pin and a ground pin and the data pins are comprised of a D+ pin and a D- pin.